



# OIL ANALYSIS REPORT

WEAR	NORMAL
CONTAMINATION	MARGINAL
FLUID CONDITION	NORMAL

Machine Id  
**1050**  
 Component  
**Rear Diesel Engine**  
 Fluid  
**PETRO CANADA DURON HP 15W40 (--- GAL)**

## RECOMMENDATION

The oil change at the time of sampling has been noted. Resample at the next service interval to monitor. No other corrective action is recommended at this time. Please specify the component make and model with your next sample.

Test	UOM	Method	Limit/Abn	Current	History1	History2
Sample Number		Client Info		WC0932488	WC0895807	WC0864974
Sample Date		Client Info		19 May 2024	16 Jan 2024	01 Nov 2023
Machine Age	hrs	Client Info		47754	952671	46767
Oil Age	hrs	Client Info		490	497	475
Filter Age	hrs	Client Info		490	497	475
Oil Changed		Client Info		Changed	Changed	Changed
Filter Changed		Client Info		Changed	Changed	Changed
Sample Status				MARGINAL	SEVERE	ABNORMAL

## WEAR

All component wear rates are normal.

Iron	ppm	ASTM D5185(m)	>100	18	37	39
Chromium	ppm	ASTM D5185(m)	>20	1	1	1
Nickel	ppm	ASTM D5185(m)	>4	0	<1	<1
Titanium	ppm	ASTM D5185(m)		0	0	0
Silver	ppm	ASTM D5185(m)	>3	0	0	<1
Aluminum	ppm	ASTM D5185(m)	>20	2	11	3
Lead	ppm	ASTM D5185(m)	>40	<1	<1	2
Copper	ppm	ASTM D5185(m)	>330	1	2	3
Tin	ppm	ASTM D5185(m)	>15	0	0	0
Vanadium	ppm	ASTM D5185(m)		0	0	0

## CONTAMINATION

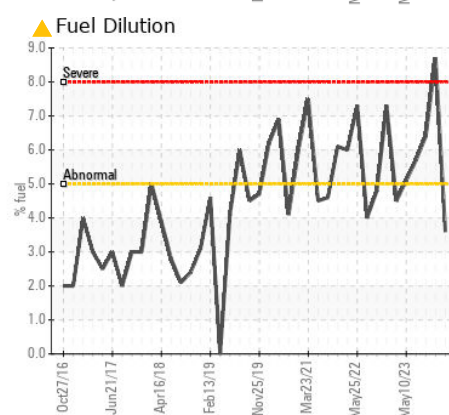
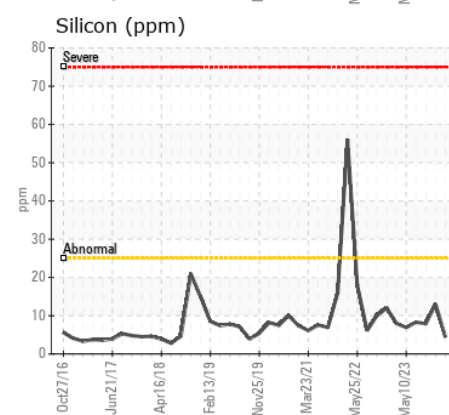
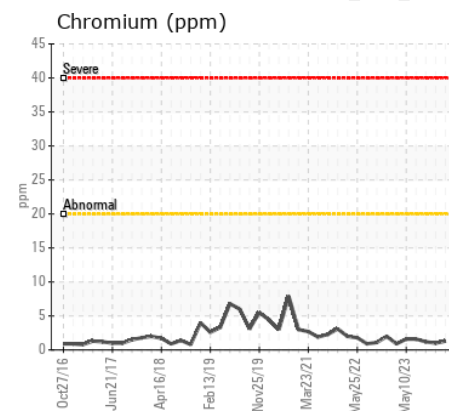
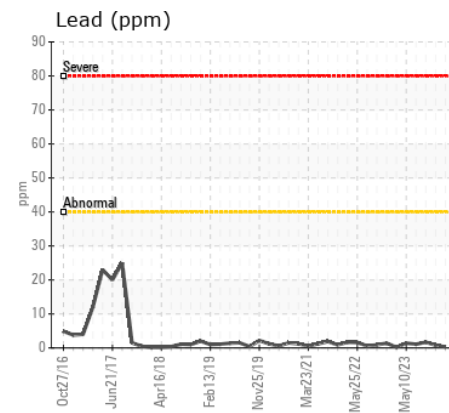
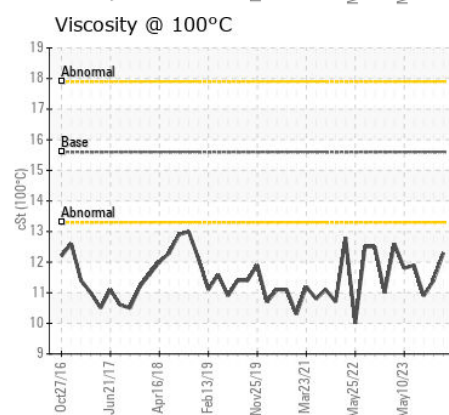
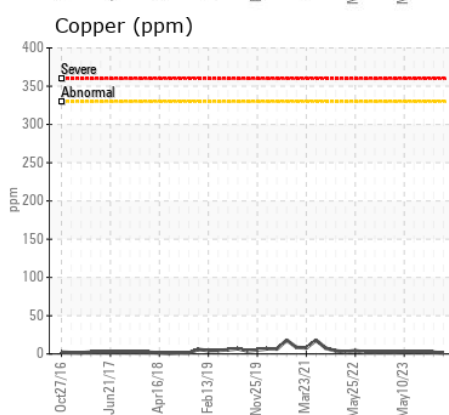
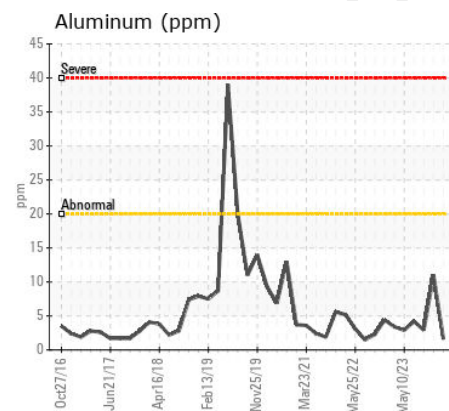
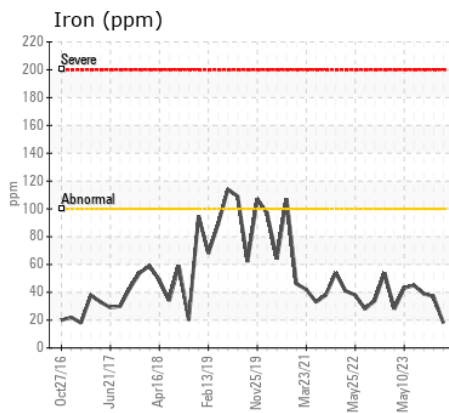
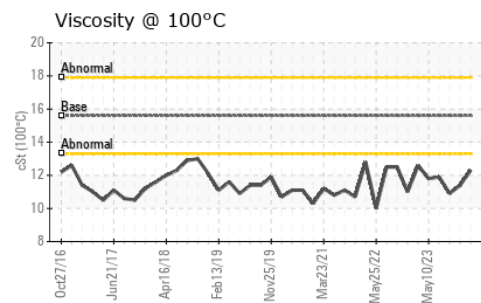
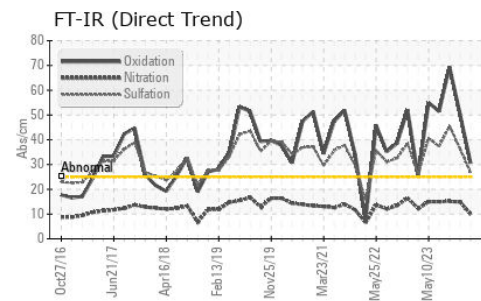
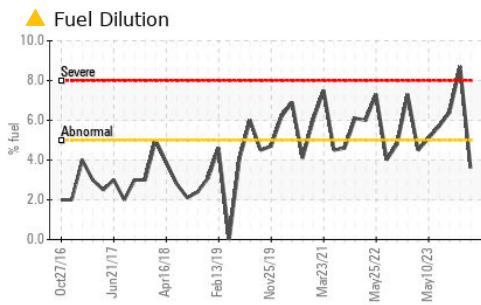
Light fuel dilution occurring. No other contaminants were detected in the oil.

Silicon	ppm	ASTM D5185(m)	>25	4	13	8
Potassium	ppm	ASTM D5185(m)	>20	<1	1	<1
Fuel	%	ASTM D7593*	>5	▲ 3.6	▲ 8.7	▲ 6.4
Water		WC Method	>0.2	NEG	NEG	NEG
Glycol		WC Method		NEG	NEG	NEG
Soot %	%	ASTM D7844*	>3	0.3	0.7	0.8
Nitration	Abs/cm	ASTM D7624*	>20	9.9	14.9	15.1
Sulfation	Abs/.1mm	ASTM D7415*	>30	26.7	36.3	45.6
Emulsified Water	scalar	Visual*	>0.2	NEG	NEG	NEG

## FLUID CONDITION

The condition of the oil is acceptable for the time in service.

Sodium	ppm	ASTM D5185(m)		8	66	35
Boron	ppm	ASTM D5185(m)	0	2	4	2
Barium	ppm	ASTM D5185(m)	0	0	0	<1
Molybdenum	ppm	ASTM D5185(m)	60	55	55	55
Manganese	ppm	ASTM D5185(m)	0	<1	0	0
Magnesium	ppm	ASTM D5185(m)	1010	920	880	859
Calcium	ppm	ASTM D5185(m)	1070	1025	981	941
Phosphorus	ppm	ASTM D5185(m)	1150	975	899	912
Zinc	ppm	ASTM D5185(m)	1270	1140	1057	1076
Sulfur	ppm	ASTM D5185(m)	2060	2501	2362	2141
Oxidation	Abs/.1mm	ASTM D7414*	>25	30.6	50.3	69.4
Visc @ 100°C	cSt	ASTM D7279(m)	15.6	12.3	▲ 11.4	▲ 10.9



**Laboratory** : WearCheck - C8-1175 Appleby Line, Burlington, ON L7L 5H9  
**Sample No.** : WC0932488 **Received** : 27 May 2024  
**Lab Number** : 02637637 **Tested** : 28 May 2024  
**Unique Number** : 5786799 **Diagnosed** : 28 May 2024 - Kevin Marson  
**Test Package** : MOB 1 ( Additional Tests: PercentFuel )

**KINGSTON TRANSIT**  
 1181 JOHN COUNTER BLVD  
 KINGSTON, ON  
 CA K7K 6C7  
 Contact: Brent Gunter  
 bgunter@cityofkingston.ca  
 T: (613)546-4291  
 F: (613)542-1504

To discuss this sample report, contact Customer Service at 1-800-268-2131.  
 Test denoted (\*) outside scope of accreditation, (m) method modified, (e) tested at external lab.  
 Validity of results and interpretation are based on the sample and information as supplied.